

REMARKS

Claim rejections under 35 U.S.C. § 102

In item 1, claim 43 is rejected as being anticipated by Chan et al. (5,880,717

Applicant respectfully traverses the rejection of claim 43. The present invention teaches the concept of changing a method of operation of a touchpad depending upon the speed that an object moves across the surface of the touchpad. The “change” in the method of operation is to switch between a first mode where the touchpad takes fewer position measurements in order to keep pace with a relatively rapid moving object, and a second mode where the touchpad takes a greater number of position measurements because the object is now moving slowly across the touchpad surface and greater precision is important.

Chan teaches a touchpad having a general purpose area of operation or “workzone”, and an edgezone surrounding the workzone. Chan states that if the object on the touchpad moves from the workzone to the edgezone at a threshold speed, then a new mode of operation is entered (see col. 4, lines 44-47). However, this new mode of operation has nothing whatsoever to do with changing the precision of operation of the touchpad. Chan teaches the well-known concept of edgemotion control of a cursor which Chan calls “automatic cursor motion control” (col. 4, lines 46-47). Chan teaches having a speed (of a cursor) in a constrained direction and a free direction, and being able to change these speeds (of the cursor on a display screen) in these directions. That is all. There is no mention anywhere in Chan of changing the precision of operation of the touchpad. While Chan clearly teaches determining a speed of the object and comparing the speed to some threshold value, Chan

never addresses the topic of making fewer position measurements or more rapid position measurements of the position of the object depending upon the speed of the object as is stated in claim 43.

The cited portions of text in Chan (col. 8, lines 65-68, col. 9, lines 1-2) refer to the speed that the cursor is moved. The speed has nothing to do with how fast position measurements are being made of the object as it moves on the touchpad.

Applicant is confused at the sentence that appears at the end of the analysis in item 1. The Office Action states, "Wherein the precision is increased and decreased based on applied constraint speed that modify the speed of the cursor moving upon the display screen." Applicant assumes that this is a conclusion of the Examiner. Applicant notes that the word "precision" does not appear anywhere in the patent. Applicant cannot find any teaching in Chan that would even suggest that there is an ability to change the rate at which position measurements of the object can be made as is claimed in the present invention. Accordingly, Applicant respectfully requests that the rejection of claim 43 in light of Chan be withdrawn.

In item 2, claims 43-62 are rejected as being anticipated by Westerman (6323846).

Applicant respectfully traverses the rejection of claims 43-62 in light of Westerman. Applicant notes that the analysis of these claims is similar to Chan. Westerman certainly teaches that the speed of an object on the touchpad can be determined and compared to some threshold value. But like Chan, Westerman does something completely different with this information and there is absolutely no mention in Westerman of being able to change the precision of the touchpad based upon the speed of the object moving across its surface.

Applicant notes that at the end of the analysis of each of the independent claims 43, 51, 59 and 61, there is a paragraph that appears to be a summary. The Office Action states:

“Wherein a dead zone filter produces zero output velocity for input velocities less than a speed threshold but produces output speeds in proportion to the difference between the input speed and the threshold for input velocity that exceed the threshold. Further wherein the decision to continue motion depends on a percentage of acceleration. The continue motion mode requires less precision and less updates. If deceleration occurs increased precision is required because movement continues to the monitored and it is not automated to continue until the next event occurs.”

Applicant notes that the first sentence is a direct quote from the patent (col. 48 lines 26-30). However, the next 3 sentences are not quotes from the specification. The entire analysis hinges on the last two sentences. These sentences are not supported by the disclosure of Westerman. The Office Action states that Westerman teaches the concept of increasing and decreasing precision based upon several passages. Of the passages col. 44, lines 20-68, col. 45 lines 30-68, col. 46 lines 1-36 and col. 48 lines 25-38, only one mentions a concept that is similar to the present invention.

Specifically, in col. 44 lines 54-59, Westerman teaches that computer-aided-design requires a “normal cursor motion gain mode and a low gain mode. Lower cursor motion gain is useful for fine, short range positioning, and would be accessed by moving only one or two fingers while keeping the rest stationary”. What Westerman has stated is not the same concept as taught or claimed by the present invention. Westerman teaches the well-known

concept of adjusting the distance that a cursor is moved on a display screen relative to the distance moved of an object on a touchpad. Thus, "normal cursor motion gain" means that the cursor on a display moves a certain distance for a given amount of movement of the object on the touchpad. In contrast, the cursor moves a shorter distance on the display for the same amount of movement of the object on the touchpad when in a "lower cursor motion gain" mode. The concept of cursor motion gain mode results in an adjustment of how far a cursor is caused to move for a given amount of movement of an object on a touchpad. This concept has nothing to do with increasing the rate at which position measurements are being made by the touchpad. Furthermore, the present invention does not teach changing the amount of distance that the cursor will move as a function of the precision of the touchpad. In the present invention, the touchpad will be taking more or less position measurements in a given period of time depending upon the speed of the object. More specifically, if the object on the touchpad is moving more rapidly than a threshold speed then fewer position measurements should be taken for a given period of time, and moving less rapidly than a threshold speed means that more position measurements should be taken in that given period of time.

Regarding claim 43, the third and fourth elements of the claim are not taught in the cited passages of Westerman as explained above.

Regarding claim 51, the third and fourth elements of the claim are not taught in the cited passages of Westerman as explained above.

Regarding claim 59, the third and fourth elements of the claim are not taught in the

cited passages of Westerman as explained above.

Regarding claim 61, the third and fourth elements of the claim are not taught in the cited passages of Westerman as explained above.

Regarding claims 44, 52, 60 and 62, Weterman can determine speed of an object and compare it to a threshold speed. However, this element is dependent upon an allowable independent claim.

Regarding claims 45, 47-50 and 53-58, an adaptive motion filter and elements of the adaptive motion filter are not taught in Westerman and furthermore these aspects of the present invention are based upon an allowable independent claim.

Conclusion

In light of the statements above, Applicant respectfully requests issuance of claims 43-62. If any impediment to the allowance of these claims remains after entry of this Amendment, and such impediment could be alleviated during a telephone interview, the examiner is invited to call David W. O'Bryant at (801) 478-0071 so that such matters may be resolved as expeditiously as possible.

The Commissioner is hereby authorized to charge any additional fee or to credit any overpayment in connection with this Amendment to Deposit Account No. 50-0881.

DATED this 10th day of March, 2008.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David W. O'Bryant", is written over the typed name.

David W. O'Bryant

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